# **SAMPLE ANALYTICAL RESULTS**

EPA Monitoring Well
Identification No: N-5A
San Mateo Creek Basin, New Mexico

Analyte	Units	EPA National Primary and Secondary Drinking Water Standards Maximum Contaminant Level (MCL)	New Mexico Water Quality Control Commission Standards for Ground Water of 10,000 mg/L TDS or Less [Human Health Standards, Other Standards for Domestic Water Supply, and Standards for Irrigation Use]	Well ID: EPA N-5A 12/10/2015			
Radiological							
Gross Alpha	pCi/L			142 (+/-23)			
Adjusted Gross Alpha for Uranium	pCi/L	15		74			
Gross Beta	mrem/yr	4		0.94 (+/-0.16) <sup>a</sup>			
Radium-226	pCi/L			0.26 (+/-0.17)			
Radium-228	pCi/L			ND			
Combined Radium 226 + 228	pCi/L	5	30	0.26			
Thorium-228	pCi/L	-		ND			
Thorium-230	pCi/L			0.198 (+/-0.07)			
Thorium-232	pCi/L			ND			
Uranium-233/234	pCi/L			94 (+/-16)			
Uranium-235/236	pCi/L			4.43 (+/- 0.84)			
Uranium-238	pCi/L			68 (+/- 11)			
Metals, Dissolved							
Aluminum	mg/L		5	0.02			
Antimony	mg/L			ND			
Arsenic	mg/L		0.1	0.00098			
Barium	mg/L		1	0.028			
Beryllium	mg/L			ND			
Cadmium	mg/L		0.01	ND			
Calcium	mg/L			110			
Chromium	mg/L		0.05	ND			
Cobalt	mg/L		0.05	ND			
Copper	mg/L		1	ND			
Iron	mg/L		1	ND			
Lead	mg/L		0.05	ND			
Magnesium	mg/L			34			
Manganese	mg/L		0.2	0.013			

Mercury*	mg/L		0.002	ND
Molybdenum	mg/L		1	NA
Nickel	mg/L		0.2	ND
Potassium	mg/L			5.1
Selenium	mg/L		0.05	0.0041
Silver	mg/L		0.05	0.00007
Sodium	mg/L			250
Thallium	mg/L			0.00004
Uranium	mg/L		0.03	0.250
Vanadium	mg/L			0.0016
Zinc	mg/L		10	ND
	1116/ L		10	ND
Metals, Total				
Aluminum	mg/L	0.05		0.39
Antimony	mg/L	0.006		ND
Arsenic	mg/L	0.01		0.00097
Barium	mg/L	2		0.038
Beryllium	mg/L	0.004		ND
Cadmium	mg/L	0.005		ND
Calcium	mg/L			110
Chromium	mg/L	0.1		0.0024
Cobalt	mg/L			0.00051
Copper	mg/L	1.3		ND
Iron	mg/L	0.3		0.99
Lead	mg/L	0.015		0.00057
Magnesium	mg/L			33
Manganese	mg/L	0.05		0.025
Mercury	mg/L	0.002		ND
Molybdenum	mg/L			NA NA
Nickel				0.0038
	mg/L			5.4
Potassium	mg/L			
Selenium	mg/L	0.05		0.0058
Silver	mg/L	0.1		ND 250
Sodium	mg/L			250
Thallium	mg/L	0.002		ND
Uranium	mg/L	0.03		0.250
Vanadium	mg/L			0.0022
Zinc	mg/L	5		ND
Wet/General Chemistry				
Alkalinity, Total as CaCO3	mg/L			340
Bicarbonate Alkalinity as CaCO3	mg/L			340
Bromide	mg/L			NA
Carbonate Alkalinity as CaCO3	mg/L			ND
Chloride	mg/L	250	250	NA NA
Fluoride	mg/L	230	1.6	NA NA
Nitrate as N (Nitrogen)	mg/L	10		NA NA
Nitrite as N	mg/L	10		NA NA
Orthophosphate	mg/L	hotwoon 6 F and	hotuson Cond O	NA 7.52
рН	pH Units	between 6.5 and 8.5	between 6 and 9	7.52
Sulfate	mg/L	250	600	NA
Total Dissolved Solids	mg/L	500	1000	1100
. 5 (4) 5 (5) 5 (7) (4) 5 (1) (4)		300	1000	1100

#### Notes:

<sup>a</sup> The Gross Beta level of 50 (+/- 16) pCi/L measured by the laboratory was converted to 1.0 (+/- 0.42) millirem/year for comparison to the EPA MCL of 4 mrem/year

### Primary Drinking Water Standard or Primary Maximum Contaminant Level (MCL)

Under the Safe Drinking Water Act, EPA has established health-based maximum contaminant levels (MCLs) for contaminants that may be present in drinking water and adversely affect public health. EPA Primary MCLs are the highest level or concentration of a contaminant allowed in drinking water of a public water system. They are enforceable standards that protect the users of a public water system. EPA does not regulate private drinking water wells.

## Secondary Drinking Water Standard or Secondary MCL

EPA Secondary MCLs are established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations such as taste, color and odor. These contaminants are not considered to present a risk to human health at the Secondary MCL. EPA does not enforce Secondary MCLs.



NM – Human Health Standards for Ground Water



NM - Other Standards for Domestic Water Supply



NM - Standards for Irrigation Use

## 2100 Concentration Exceeds EPA and/or New Mexico Standard

**ND** Analyte Not Detected [An ND value means that the analyte was not detected above the laboratory Method Detection Limit (MDL). The MDLs are significantly below the EPA and New Mexico standards and, therefore, an ND indicates that if an analyte is present, it is at a very low concentration and well below the standard]

NA Not Analyzed/Not Applicable

pCi/L picocurries per Liter

mrem/yr millirem/year

mg/L milligrams per Liter

**Dissolved Metals** – For metals analysis, the New Mexico WQCC ground water standards are based on analysis of water samples which have been filtered to remove colloidal particles (fine sediment particles) that are suspended in the water. By removing the suspended colloidal particles through filtration, the concentrations of metals detected in the filtered sample should be representative of the dissolved metals that are mobile in ground water.

**Total Metals** – The EPA drinking water standards (MCLs) are based on the total concentrations of metals analyzed in an unfiltered water sample. The unfiltered water sample will including those concentrations of metals adsorbed to the fine colloidal particles that are suspended in the water. EPA guidance for ground water sampling is to use a low-flow sampling technique without filtration for subsequent metals analysis. The low-flow sampling technique is to limit the amount of suspended colloidal particles in the collected sample. Under such conditions, the collected samples should be representative of the dissolved and particulate metals that are mobile in the ground water.